

10th International Strategic Management Conference**Global Innovation and Knowledge Management Practice in Small and Medium Enterprises (SMEs) in Turkey and the Balkans**Sudi Apak^a, Erhan Atay^b, a^{*}^a*Beykent University, Istanbul, 34396, Turkey*^b*Trakya University, Edirne, 22800, Turkey*

Abstract

In today's changing world innovation management is becoming one of the key drivers for change and competitive advantage within industry. SMEs need to respond rapidly to these emerging changes so as to fulfill their customer needs more rapidly. The key component of a knowledge economy is a greater reliance on intellectual capabilities than on physical inputs or natural resources. We provide evidence drawn from patent data to document and upsurge in knowledge production and show that this expansion is driven by the emergence of new industries. Economic and political relations between Balkan countries and Turkey are so important that their common socio-cultural values come from their history. Therefore, Turkey and Balkans have not stepped into knowledge economy yet. In order to achieve this, they have to accomplish their economy and should not miss the importance of the knowledge economy. In this context, the Balkans has always been at a crossroads of different cultures and civilizations, where different religions and people have existed side by side. Economically, the Balkan states are relatively small entities. Balkan countries are at different levels of democratic transformation and their per capita GDPs range from less than 2000 Euro to around 7000 Euro. The purpose of this article is to investigate knowledge management practice in Turkey and the Balkans. Knowledge-based economic approach becomes the main development leverage for the global economy that a challenge for these regions is realizing the 'new value' of knowledge.

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1. Introduction

Economics, social and technological changes in recent years in the world's economy have been explained by the concept of knowledge economy. We can define knowledge economy as production and services based on knowledge-intensive activities that contribute to an accelerated pace of technical and scientific advance, as well as rapid obsolescence. Knowledge is now recognized as the driver of productivity and economic growth. Knowledge economy

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is greatly changing the construction of industrial economy and gradually becoming the economic system of the 21st century.

While knowledge always has been at the heart of economic development, there is substantial evidence nowadays that the capacity to produce and use knowledge has much more explanatory value in determining levels of economic welfare and growth than in the past.

The openness of a country to foreign trade seems to have greater effect on its economic success than would be predicted by the standard trade models of comparative advantage. One explanation is that knowledge trade and foreign direct investment provide important channels for the transmission of knowledge. Knowledge is also obtained by travel across open borders. For instance, both Slovenia and Albania had borders with West Europe but the borders were not equally open.

Accordingly, Albania is the most closed and is now the poorest post-socialist country (Stiglitz, 1999). On the other hand, productive knowledge can be defined as the set of specific knowledge to produce commodities or to render services responding to practical needs and wants of the community as well as to increase our control over the environment we live in. A more concise definition would be technology is knowledge applied to resources through human labor.

In this study, SMEs knowledge management outlook and trade between Turkey and Balkan countries have been examined to review the potential of regional economic co-operation. Firstly, we deal with knowledge management for the SMEs. Section 3 discusses the process of economic change of the SMEs in Turkey and the Balkan countries in the light of SWOT analysis. Section 4 evaluates effective innovation capability for both Turkey and the Balkan countries and final section is devoted to the conclusions.

2. Knowledge Management and SMEs

Generally, SMEs have an advantage over large enterprises with respect to their structure, in implementing knowledge management.

According to the Lisbon Strategy, EU is the most dynamic and competitive knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion.

The global prosperity of mankind depends on the same source; the producer as well as the user of productive knowledge that is the knowledgeable and creative human resources. In this regard, internet makes it possible to establish a global quality assurance information highway for simultaneous on-line quality assurance data exchange and to interact with suppliers and customers world wide.

Indeed, knowledge has become the most important factor determining the standard of living more than land, tools and labor today. The economy is being transformed from a resource-based economy to a knowledge-based economy. What we mean with knowledge based economy is one in which the generation and exploitation of knowledge play the predominant part in the creation of wealth. The term “knowledge-based economy” for new economy results from a fuller recognition of the role of knowledge and technology in economic growth (Karahana, 2006).

While various researchers have developed and implemented specialist innovation management frameworks (IMFs) for large organizations, many SMEs organizations still face the challenge of selecting affordable frameworks including strategies, tools, and methods, which fit their objectives and needs as SMEs and then successfully implementing such frameworks (Nada: 2010).

However, unfortunately, the transactions in technology markets display many disadvantages for the developing countries and their firms. Not only in our present area, but also throughout the entire history of mankind the productive knowledge has been the key to growth process through productivity increases. But, there is something more important than the knowledge on production itself; the source of it, the human beings who not only produce the “productive knowledge” but also apply it to specific areas to increase the standards of living (Gurak, 1999).

In sum, there is a high correlation between innovation capability and knowledge management capacity in SMEs and the results support our research hypothesis that a firm with a knowledge management capacity will use resources more efficiently and so will be more innovative and perform better. The sample slightly over-represented smaller firms since data were also collected in Turkey. As with most studies, it is important to replicate this study in different contexts (Nada: 2012).

3. Innovation Management Capability in Turkey and the Balkans

According to the Lawson and Samson (2001) study, innovation capability refers to the ability to continuously transform knowledge and ideas into new products, processes and systems for the benefit of the firm and its stakeholders. Thus, innovation capability refers to the ability to integrate limited resources to implement and manage innovation.

Therefore, Gaynor (2002) has defined the innovation capacity as a systematic way of extraordinary potential opportunities, analyzing whether they are suitable to utilize for organization's strategic management.

3.1. SMEs in Turkey

In this context, Turkey has successfully transformed herself from an essentially agriculture-based, closed economy relying on import substitution and a with a predominantly rural population to a relatively industrialized country with an export-competitive economy, predicated upon free-market forces and a population the majority of which is now living in urban centers (Gürüz and Pak: 2006).

It is increasingly clear that in order to achieve the goals of an organization, SMEs must establish an innovation strategy and monitor the innovation process. SMEs must also comply with this as well as managing the collaboration with their customers. SMEs can also make substantial improvement by managing the knowledge assets of their organization. This can only be done by putting more effective structures and systems in place to capture the knowledge of the organization rather than adopting the current ad-hoc approach to technology and information transfer (Nada et al, 2012).

Table 1 SWOT Analysis of the SME Sectors in Turkey and the Balkan Countries

STRENGTHS	WEAKNESS
As a positive element of employment SMEs play an important in the solution to the unemployment problem. Increasing awareness for the adaptation of modern production techniques. Contribute to regional development. Developing political commitment for the design and implementation of SME policies. Increasing motivation for innovation and entrepreneurship. Working with a high proprietary interest rate, which makes enterprises less vulnerable to financial crises. Existence of pro-active bottom-up initiatives in favor of innovation. Adapt to changes with its flexible structure.	Low private and public expenditure on research and development. Inadequate use of modern marketing and business techniques force. Deficiency in quality and branding as well as qualified labor force. Insufficient level of institutionalization and specialization. Inadequate continuous monitoring and evaluation system for SME policy measures. Inadequate financial sources of SMEs. Cannot use modern marketing techniques. Educational level and the quality of SME managers and employees is not at desired level. Collaboration and productivity levels are low.
OPPORTUNITY	THEREAT
It has been aware of the importance of SMEs in the economy. Discussion of SME and related policies at a number of platforms. EU membership process offers new opportunities for SMEs. Strategy and action approach towards SMEs is accepted by the government. EU markets will offer new opportunities for SMEs. Intellectual and industrial property rights legislation and technical infrastructure was developed for SMEs. Improvements in macroeconomic indicators of Turkey will provide long-term benefits. Further opening of economies in the Balkan, Black Sea, Mediterranean, and Middle East Countries.	Economic uncertainty has a negative impact on SMEs. Lack of coordination between agencies which are providing services and support to SMEs. International sectoral-based presentation is inadequate. Social security contributions, tax rates etc. are high in liabilities. Implementations of policy and strategy documents of SMEs are inadequate. Issues regarding communications information and trust could not yet be overcome in some area. International political and economic uncertainty and instability in Turkey's neighborhood. Low participation in lifelong learning programs.

Source: Adapted From Keskin and Şentürk, 2101, p. 126.

On the other hand, in Turkey SMEs have proved to be one of the main sources for employment and economic growth where they represents over 85% of the country GDP and two third of the labor market in Turkey. Currently

SMEs provide 99.8% of business activities within Europe and account for 68% of employment while business revenue accounts for 63%. The mainstream of these SMEs employ less than 10 employees and small businesses have become a key provider to private-sector employment and output. Together with start-ups SMEs are reported to create between one and two third of all new jobs.

Even though, Turkey realized successful transition to the open market economy; as it can be seen in Table 1, in light of the SMEs' weaknesses in Turkey, attention is focused specially on three areas:

- Financing: Increase SMEs' share in the overall volume of bank lending; deploy structures that would enable SMEs to make more and better use of financial instruments such as venture capital and partnerships in financial or real estate investments.
- Non-financial support: Develop communication and interaction among service providers, SMEs, trade organizations and government agencies in order to improve the quality of services rendered and expand the number of SMEs receiving them.
- Technology: Raise the technological level of SMEs via training programs and support for R&D to underpin the development of firms' technological infrastructure (OECD: 2004).

Consequently, the dual structure of the Turkish economy, where outward-oriented and competitive modern firms co-exist with traditional, family-owned, small and medium-sized enterprises (SMEs) has to converge. Turkey needs to improve the competitiveness of its significant SME segment. Less burdensome business regulations and increased opportunities for SMEs to access capital are urgently needed (Adaman et al., 2007).

3.2. The Balkan Countries and SMEs

Knowledge and innovation generate significant positive externalities where the social rate of return is frequently almost three times higher than the private rate of return. However, knowledge is a quasi-public good that cannot be completely controlled by the firms that create it and the firms that make the investment cannot always keep to themselves the resulting benefits.

There is a large consensus among the research community that SMEs are major employment and economic boosters in the economy of the Balkan region. At the same time, all countries in the Balkan region are still struggling with problems of unemployment and under performance of the economy.

In the past several years each country in the Balkans has established governmental departments focused on SMEs to support their development. In this regard, all Balkan countries have set up legal frameworks for development of SMEs and have endorsed the European Charter for Small Enterprises.

Despite their low development, SMEs are significant economic and employment drivers within the Balkans and most businesses throughout the region are small and medium sized. In addition, former Yugoslav countries traded with each other more than with the outside world. Albania is the least regionally integrated country, and there have been no trends signaling that this would change. Therefore, despite their common borders, trade between Croatia and Serbia and Montenegro remains minimal. Additionally, FYR Macedonia has relatively significant trade with all other Balkan countries.

Although the Balkan countries may have been better endowed with human capital and skilled labor compared to other low and middle-income countries, this comparative advantage could have been eroded by the war and its consequences, most notably emigration and thus "brain drain". Therefore, cooperation in the fields of research and development, human resource management and innovation appear increasingly necessary. One should also note that the Balkan region is rather small in both economic and population terms, which have potentially negative welfare implications (Kaminski: 2003).

In sum, there is little substantive evidence of effective working models of training for entrepreneurs and the informal economy is a challenge to the development of economical projects and programs in the Balkan region.

4. Effective Innovation Capability

Innovation management has recently received much attention from research, industry and state support. However, much of the research has focused on large enterprises with much available financial wealth and required planning infrastructure, in order to be effective at managing innovation.

There are a number of key factors that affect the innovation process within SMEs such as research and development investments, state funding, links to knowledge centers, links to customers, collaboration and systems and structures to manage the process (Keizer: 2002).

In SMEs, the managers are in most cases the owners, which imply that decision making is centralized, and there are fewer layers of management. This means that decision-making is shorter than in large organizations (Ghobadian: 1997).

With the support of artificial intelligence and modern information technology it is possible to realize modern cost-effective customer-driven design and manufacturing taking into account the importance and basic role of quality management and metrology. This will be especially possible on the basis of an innovative concept and model for modern enterprises - the so-called Multi-Functions Integrated Factory (MFIF) that makes possible an agile and optimal industrial production (Osanna: 2004).

Therefore, learning with self improving ability makes possible the way to “Zero Error” production. A method has been developed enabling the supervision of quality in the process chain as well as its optimization by means of a knowledge and neuronal-network-based learning management system, and a self-learning system with neuronal-networks has been realized (Westkaemper: 1994).

Presently there exists a general development from micro technology to “nano technology”. Nano technology describes new innovative manufacturing technologies, finishes, tolerances and especially measurement techniques in the nanometer range (Whitehouse: 1991).

Optoelectronic and Nanotopographic quality assurance methods and a global data communication model for the future that is investigated to realize the concurrent quality management and quality assurance activities and other production activities in MFIF, e.g. all production processes, for example design and development, process planning, manufacturing and quality assurance and management etc., which are traditionally carried out sequentially, can be carried out in parallel in MFIF in global and intelligent manufacturing environment, are introduced. Quality management systems with intelligent associative, concurrent, interactive, collaborative, modular, integrative, learning, autonomous, self optimizing and self organizing functions will be realized with MFIF in the near future (Osanna, PH: 2000).

In this context, Figure 1 shows that almost 80% of all internationally active SMEs have business activities in other EU countries. For other European countries, e.g. Iceland, Norway, Switzerland and the Balkan countries, the percentage is still 31%. In regions and continents beyond Europe some 10 to 20% of internationalized SMEs are active (EIM Business & Policy Research: 2010).

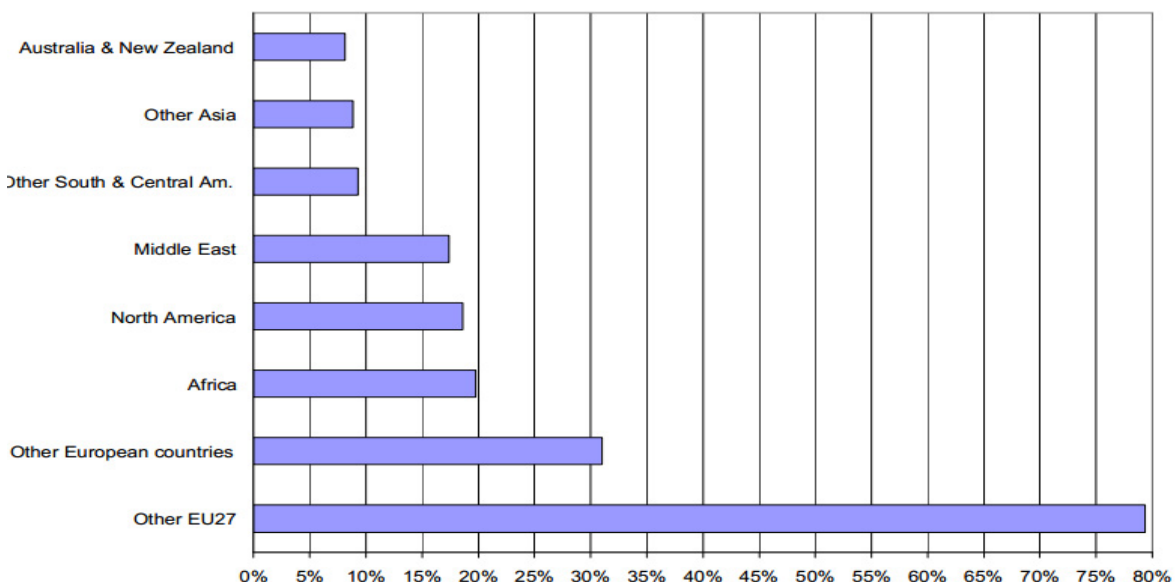


Fig. 1 Regions in which internationalized SMEs have business activities, percentage of SME
Source: Q31, Survey 2009-2010, Opportunities Internationalisation SMEs, EIM/GDCC (EU27, N=6649).

According to the Nada's 2012 study, effective innovation capability depends on seven dimensions: (1) Innovation Strategy, (2) Innovation Process (3) Leadership and Culture, (4) Collaboration and Partnering and (5) Business and Technology, (6) Innovative organization, and (7) Learning.

However, collaboration with universities and customers while ranked extremely important for SMEs was ineffective and not adequate. SMEs still use unstructured forms of collaboration mechanisms. Much of the collaboration that takes place within the SMEs appears to be face to face and on an ad-hoc informal basis that is why much of the gained knowledge may be lost (Nada: 2010).

Finally, analyzing how firms actually practice innovation may display the effectiveness of their innovation management approach and help translate it from a common concept into actions and competitiveness (Drejer, 2006).

5. Conclusions

The global economic crises are expected incidents in business life. For example, recessions in the first place pose a serious threat to the survival of SMEs due to their scale. In such turbulent times, effective management strategies will provide assurance against negative consequences of such economic downturn. They also will lead to the performance improvement of SMEs during the recovery and peak periods of business cycles.

It is this article's another objective to assess how far SMEs in the Balkans and Turkey find favoring conditions supporting their entry, growth, and innovative activities and to which extend they display truly entrepreneurial behavior in terms of effectively translating the results of R&D into commercial outcomes and penetrating international markets.

Finally, in this descriptive paper we have realized that the success of SMEs entails an effective management function or a capability of selling its goods and services. In this context, the SMEs will be in high need of effective management prescriptions that lead to performance improvement and viability during recession, recovery, and peak periods of business cycles. To meet market demands in the present global industrial world, SMEs must be flexible enough to respond fast to product demand differentiations.

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